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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/362,698      | 07/29/1999  | TAKASHI KATO         | 684.2621CIP         | 7175             |

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EXAMINER

WINSTEDT, JENNIFER E

ART UNIT PAPER NUMBER

2872

DATE MAILED: 05/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/362,698

Applicant(s)

KATO ET AL. *pk*

Examiner

Jennifer E Winstedt

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2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 October 2001 and 15 February 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18-37 is/are pending in the application.
- 4a) Of the above claim(s) 20, 21, 25-27, 30, 31 and 35-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18, 19, 22-24, 28, 29 and 32-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 25 October 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/019,697.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 20, 21, 25-27, 30, 31, and 35-37 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 13.
2. Applicant's election with traverse of Species I in Paper No. 13 is acknowledged. The traversal is on the ground(s) that neither the applicants nor the Patent and Trademark Office should be put through the trouble and expense entailed in multiple filing and prosecution and the public-at-large should not be required to obtain and study several patents in order to have available all of the issued patent claims covering the subject invention. This is not found persuasive because the applicants still claim more than one patentably distinct species. The applicant also argues that claims are never species and that species can be found only in the figures and that the species are so closely related that they do not require separate fields of search. These are to found to be persuasive because different claims recite the different features distinguish the species from each other and the different species, although closely related, are still patentably distinct and searching them both in the same application would be a burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

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***Priority***

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/019,697, filed on 6 February 1998. (This is for Japanese applications 09-040012 and 09-126336.)
4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. (This is for Japanese applications 10-230275, 10-234928, and 10-234929.)

***Drawings***

5. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 10/25/01 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 18, 19, 22-24, 28, 29, and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuji et al. (U.S. Patent 5,424,552).

Regarding claims 18, 22, 23, 28, 32, and 33, Tsuji et al. discloses a projection exposure apparatus comprising an illumination system for illuminating a pattern formed on a mask (1, 6, Figure 1); and a projection optical system for projecting the pattern of the mask onto a wafer (see Figure 1), the projection optical system including a diffractive optical element (R, Figure 1; the mask (or reticle R) is a diffractive optical element and can be considered part of the projection optical system) being able to be deformed by thereof (column 27, lines 50-51), and at least one optical member for preventing a change in optical performance of the optical system due to deformation of the diffractive optical element when the diffractive optical element is provided in the optical system (40, 41, 43, 45, Figure 1 and column 25, lines 61-65).

Regarding claims 19 and 29, Tsuji et al. discloses that the at least one optical member has at least one aspherical surface (column 27, lines 9-14; a lens that has a change in curvature has an aspherical surface).

The method of claims 24 and 34 is inherent in the apparatus described above.

### ***Response to Arguments***

8. In light of the amendments made to the specification and drawings, the objections to the specification and drawings are withdrawn.

9. Applicant's arguments with respect to claims 18, 19, 22-24, 28, 29, and 32-34 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

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10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer E Winstedt whose telephone number is (703) 305-0577. The examiner can normally be reached on 7:30-17:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703) 308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JW  
May 2, 2002

A handwritten signature in black ink, appearing to read 'C. Spyrou', written in a cursive style.

**Cassandra Spyrou  
Supervisory Patent Examiner  
Technology Center 2800**